

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-11 (Cancelled).

Claim 12 (Currently Amended): A bolometric detector comprising: ~~at least~~
a receiving antenna for collecting electromagnetic waves, the receiving antenna
having a load resistance,
a resistive load for converting the power from the electromagnetic waves into heating
power,
a thermometric component for measuring ~~the~~ a rise in temperature of said receiving
antenna, relatively to a reference temperature, associated with the heating power, wherein
the resistive load is formed by the load resistance of the antenna, and ~~in that~~
the thermometric component is electrically insulated from the load resistance of the
antenna.

Claim 13 (Previously Presented): The bolometric detector according to claim 12,
wherein the thermometric component is a diode.

Claim 14 (Currently Amended): The bolometric detector according to claim 13,
wherein

the receiving antenna comprises four separate metal ~~separate~~ components arranged in
a shape of a cross around a central portion so that a first two metal components are aligned
along a first axis and a second two metal components are aligned according to an axis
perpendicular to the first axis, ~~wherein~~

the four separate metal components are arranged on a silicon layer,
the silicon layer has, at a central portion, a recess so that diode is hung above a silicon substrate, in that it comprises means for hanging the diode,

said means for hanging the diode comprising at least a set of two metal arms, wherein a first metal arm is connected to a first ~~metal component~~of said four separate metal components and a second metal arm is connected to a second of said four separate metal components~~the metal component which is aligned with the first metal component~~.

Claim 15 (Currently Amended): The bolometric detector according to claim 14, wherein the receiving antenna, the diode ~~which comprises~~forming the thermometric component, and the means for hanging the diode, define, as seen from above, an occupied space with a square shape, wherein a side of the square has a length substantially equal to one half of the wavelength of the detected wave.

Claim 16 (Previously Presented): An imaging device comprising at least a bolometric detector, wherein the bolometric detector is a detector according to claim 12.

Claim 17 (Currently Amended): An imaging device ~~The imaging device according to claim 16, further~~ comprising at least a set of four bolometric detectors arranged side by side, wherein each of the at least four bolometric detectors is a detector according to Claim 12 and the at least four bolometric detectors are arranged so that respective thermoelectric devices ~~diodes of which~~ are mounted in parallel.

Claim 18 (Currently Amended): The imaging device according to ~~claim 16~~claim 17, ~~further comprising at least a set of four bolometric detectors arranged side by side and the~~

~~diodes of which are mounted in parallel, wherein a first two~~ first of said at least four
bolometric detectors ~~for collecting~~ are configured to receive TE waves and another two of
said at least four ~~second bolometric detectors for collecting~~ are configured to collect TM
waves, wherein ~~diodes~~ the thermoelectric components of the first two of said at least four
bolometric detectors are ~~associated according to~~ connected for form a first parallel circuit and
the thermoelectric components ~~diodes~~ of the second two of said at least four bolometric
detectors are ~~associated according to~~ connected to form a second parallel circuit.

Claim 19 (Currently Amended): The imaging device according to claim 18, wherein
each of said at least four bolometric detector comprises a ~~second~~ diode placed in a vicinity
of a ~~diode~~ the respective thermoelectric component ~~which forms the thermometric component~~,
wherein each ~~second diode enables~~ is configured to remove all or part of parasitic signals
received by the respective bolometric detector ~~to be removed~~ through differential readout of
~~the signals which it generates~~ generated by said respective bolometric detector and ~~of~~ signals
derived from said diode.

Claims 20-21 (Cancelled)